

REMARKS

This amendment is responsive to the Office Action dated February 27, 2003. In this Amendment, Applicants have cancelled claim 2, and amended claims 1, 3-7, 12-14, 25, 26, 32, 39, 44, 48, 60, 62 and 64 to more appropriately define the invention. Claims 1 and 3-64 are pending. Applicants have submitted this amendment in the permitted "revised" format.

Claim Objection

In the Office Action, the Examiner objected to claim 25, noting a minor informality. In particular, the Examiner noted that "the color image form the color" in claim 25 should read "the color image from the color." In this Amendment, Applicants have amended claim 25 to correct the informality identified by the Examiner.

Claim Rejection Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 9-13, 34-38 and 54-58 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner asserted that the terms "approximately," "substantially," and "about" render "the claims indefinite because it is unclear whether the limitations following the terms are part of the claimed invention." In support, the Examiner referred to MPEP § 2173.05(b,d). Applicants respectfully traverse this rejection.

The use of the terms "approximately," "substantially," and "about" is well accepted, and raises no indefiniteness issues. In particular, one of ordinary skill in the art would have no difficulty understanding what is claimed in light of Applicants' disclosure. On a number of occasions, the Court of Appeals for the Federal Circuit has specifically addressed the issue of the legitimacy of the term "substantially" in relation to the indefiniteness requirements of 35 U.S.C. § 112, second paragraph.

Recently, this specific issue was addressed in *Verve v. Crane Cams Inc.*, (Fed. Cir. Nov. 14, 2002). The court in *Verve v. Crane Cams, Inc* cited numerous examples of cases holding that the term "substantially" is not an indefinite claim term. In particular, the court in *Verve v. Crane Cams, Inc.* stated

Expressions such as "substantially" are used in patent documents when warranted by the nature of the invention, in order to accommodate the minor variations that may be appropriate to secure the invention. Such usage may well satisfy the charge to "particularly point out and distinctly claim" the invention, 35 U.S.C. §112, and indeed may be necessary in order to provide the inventor with the benefit of his invention. In *Andrew Corp. v. Gabriel Elecs. Inc.*, 847 F.2d 819, 821-22, 6 USPQ2d 2010, 2013 (Fed. Cir. 1988) the court explained that usages such as "substantially equal" and "closely approximate" may serve to describe the invention with precision appropriate to the technology and without intruding on the prior art. The court again explained in *Ecolab Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1367, 60 USPQ2d 1173, 1179 (Fed. Cir. 2001) that "like the term 'about,' the term 'substantially' is a descriptive term commonly used in patent claims to 'avoid a strict numerical boundary to the specified parameter,'" quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217, 36 USPQ2d 1225, 1229 (Fed. Cir. 1995).

Moreover, the court in *Verve v. Crane Cams, Inc.* continued by stating

It is well established that when the term "substantially" serves reasonably to describe the subject matter so that its scope would be understood by persons in the field of the invention, and to distinguish the claimed subject matter from the prior art, it is not indefinite.

The instant case is an example of use of the term "substantially" to describe the subject matter so that its scope would be understood by persons in the field of the invention while providing Applicants with the benefit of their invention. A similar analysis applies for the terms "approximately" and "about."

Consistent with the *Verve v. Crane Cams, Inc.* case, the MPEP section cited by the Examiner appears to support, rather than controvert, the legitimacy of such terms for purposes of definiteness under section 112, second paragraph. In virtually every case discussed in MPEP § 2173.05(b), the courts found that terms such as "about" and "substantially" were acceptable for purposes of section 112, second paragraph.

Accordingly, Applicants question both the basis for the Examiner's position and his reliance on MPEP § 2173.05(b). Also, it appears that MPEP § 2173.05(d), directed to the use of *exemplary* claim language, is not applicable to the use of *relative* terminology such as "approximately," "substantially," and "about."

The Examiner's concern that "it is unclear whether the limitations following the terms are part of the claimed invention" appears to be unfounded. Applicants cannot perceive a way in

which the terms "approximately," "substantially," or "about" would somehow negate the positively recited limitations that follow them.

Applicants respectfully submit that the rejection under section 112, second paragraph, is improper and should be withdrawn.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claim(s) 1, 2, 4, 5, 17-20, 23, and 60-63 under 35 U.S.C. 102(e) as being anticipated by Murashita et al. (U.S. Patent No. 6,504,950).

Applicants respectfully traverse this rejection. Murashita et al. fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(e), and provides no teaching that would have suggested the desirability of modification to include such features.

For example, Murashita et al. fails to disclose obtaining information characterizing the color response of a display device associated with a client residing on a computer network, modifying a color image based on the information to improve the accuracy of the color image when displayed on the display device, and delivering the modified color image to the client via the computer network for display on the display device, as required by claims 1, 2, 4, 5, 17-20, 23, and 60-63.

Murashita et al. describes a system for delivery of calibration images from a server to client devices for used in calibrating display devices. For example, Murashita et al. uses the calibration images to obtain calibration information for modification of display device profiles maintained for the client devices. The modified display device profiles may be initially stored at the server or at the client device. Murashita et al. describes distribution of a display device profile to the client device via email for later use in modifying and displaying color images.

According to Murashita et al., however, the client device (*not* the server) uses the modified display device profile to modify images for presentation on the display device. Therefore, contrary to the requirements of claims 1, 2, 4, 5, 17-20, and 23, Murashita et al. does not modify a color image based on information characterizing the color response of a display device to improve the accuracy of the color image when displayed on the display device, and deliver the modified color image to the client via the computer network for display on the display device. Instead, Murashita et al. describes the modification of color images at the client device,

and fails to contemplate delivering a modified color image to a client device across a computer network, as set forth in Applicants' claims.

To the extent that the Examiner may consider the calibration images delivered in the Murashita et al. system to be "modified images" that are delivered to a client in accordance with the claims, Applicants point out that the calibration images contemplated by Murashita et al. are not modified based on the color response information to improve the accuracy of the respective image when displayed on the display device. Rather, Murashita et al. merely describes the delivery of calibration images for the purpose of obtaining color calibration information, and not to improve the accuracy of the displayed images themselves, contrary to the requirements of claim 1.

In his analysis, the Examiner characterized the profile modification unit of Murashita et al. as modifying a color image based on information characterizing the color response of a display device. The profile modification unit described by Murashita et al. does not modify color images to improve the accuracy of the color images when displayed on the display device. Instead, as its name ("*profile* modification unit") implies, it modifies *profiles*. Hence, the "transmitting unit" of Murashita et al. delivers not a modified image, as defined by claim 1, but calibration images to obtain information for generation of a modified display device profile.

Unlike an image that is modified to improve the accuracy of the image itself, the transmitted calibration image and profile in Murashita et al. are merely sent to obtain calibration information. For example, the calibration image may contain a checkerboard pattern of pixels for measurement by the user to characterize the display device. Unlike the calibration image, the profile is not even an image file, and is not displayed on the display device. Accordingly, Applicants respectfully submit that the operation of the Murashita et al. system differs substantially from that of the method set forth in claim 1.

With respect to FIG. 36 of Murashita et al., the Examiner stated that the Murashita et al. system discloses modifying a plurality of color images, and delivering at least one of the images to a client. Applicants can find no support for the Examiner's statement to the extent the requirements of claim 1 are at issue. Claim 1 requires, *inter alia*, modifying a color image based on information characterizing the color response of a display device to improve the accuracy of the color image when displayed on the display device, and delivery of the modified color image to the client via the computer network for display on the display device. There is no such

teaching in Murashita et al., which relates to delivery of calibration images for use in characterizing a display device.

Murashita et al. also does not disclose or suggest obtaining information characterizing the color response of a display device associated with a client residing on a computer network by guiding the client through a color profiling process that profiles the color response of the display device, wherein the color profiling process includes estimating the gray balance of the display device, as further required by claim 1, as amended. Murashita et al. simply makes no mention of estimating the gray balance of the display device, and provides no teaching that would have suggested the desirability of such a feature.

With respect to claims 60 and 61, Murashita et al. fails to disclose or suggest obtaining information characterizing the color response of a display device associated with a client computer residing on a computer network, wherein the information includes an indication of gamma, gray balance and black point, modifying a color image based on the information to improve the accuracy of the color images when displayed on the display device, and delivering the modified color image to the client via a computer network for display on the display device. Again, Murashita et al. describes the modification of color images at the client device to improve the accuracy of the color images when displayed on the display device, and fails to contemplate delivering a modified color image, as defined by the claims, to the client via a computer network.

With respect to claims 62 and 63, Murashita et al. neither discloses nor suggests requesting a color image from a remote server, transmitting to the remote server information characterizing the color response of a display device associated with a client residing on a computer network, wherein the information includes an indication of gamma, gray balance and black point, and receiving from the remote server the requested color image following modification of the color image by the remote server based on the information to improve the accuracy of the color image when displayed on the display device. As discussed above, the Murashita et al. reference simply does not discuss delivery of a modified color image from a remote server to a client device to improve the accuracy of the color image when displayed on the display device. Moreover, Murashita et al. fails to contemplate transmitting information including an indication of gray balance.

In view of the shortcomings identified above, Murashita et al. does not anticipate the requirements of claims 1, 2, 4, 5, 17-20, 23, and 60-63. Upon recognition of the basic

differences between the calibration images transmitted in the Murashita et al. system and the modification and delivery of a color image to improve the accuracy of the color image when displayed on the display device, as set forth in the claims, it should be apparent that Murashita et al. does not support a prima facie case of anticipation. Therefore, the rejection under section 102 should be withdrawn.

In view of the fundamental shortcomings identified above, Applicants reserve comment concerning the additional limitations expressed in dependent claims 4, 5, 17-20, 23, 61 and 63, and do not acquiesce in the Examiner's application of the teachings of Murashita et al. to those claims.

Claim Rejection Under 35 U.S.C. § 103 in view of Murashita et al.

In the Office Action, the Examiner rejected claims 3, 14-16, 21, 22, 24-33 and 39-51 under 35 U.S.C. 103(a) as being unpatentable over Murashita et al. The Examiner acknowledged that Murashita et al. fails to teach a number of features set forth in claims 3, 14-16, 21, 22, 24-33 and 39-51, but concluded that modification of the Murashita et al. system to incorporate such features would have been obvious to one of ordinary skill in the art at the time of invention. Applicants respectfully traverse this rejection, and address some of the shortcomings of the Murashita et al. reference below.

With respect to claim 14, the Examiner recognized that Murashita et al. does not teach obtaining information characterizing the color response of a display device associated with a client residing on a computer network by generating a web cookie based on the results of a color profiling process. The Examiner noted, however, that a web cookie is "a block of data that a web server stores on a client system." On this basis, the Examiner concluded that it would be obvious to one skilled in the art to transmit color profiles using a web cookie.

The Examiner's conclusion of obviousness is improper. First, regardless of the definition of a web cookie, the Examiner failed to identify any teaching that would have suggested modification of the Murashita et al. system to make use of a web cookie, as claimed. The Murashita et al. reference describes the transmission of a display profile via email. It is unclear why one of ordinary skill in the art would have found it desirable to generate a web cookie based on results of the color profiling process, rather than the email technique already contemplated in

Murashita et al. Indeed, the Examiner pointed to no such teaching or motivation. For this reason, the Examiner did not establish a prima facie case of obviousness.

Moreover, the modification proposed by the Examiner does not appear to make sense in the Murashita et al. system. As mentioned above with respect to the rejections under section 102, Murashita et al. contemplates modification of color images by a client device. Yet, web cookies are generally designed to be uploaded to a server for server-side processing. Consistent with this aspect of web cookies, claim 14 requires transmission of the web cookie to a remote server in the computer network. Clearly, this approach would be at odds with the architecture of the Murashita et al. system, which suggests neither the use of web cookies nor the modification of color images via a server. For this reason, one of ordinary skill in the art would have consciously avoided any modification of Murashita et al. that involved generation of web cookies, as claimed.

With respect to claim 15, the Examiner asserted that Murashita et al. discloses that a remote server modifies a color image based on color profiling information. As discussed previously, Murashita et al. does not provide such a teaching. Instead, the server in Murashita et al. merely delivers calibration images to clients. In particular, Murashita et al. fails to disclose or suggest modifying a color image at a remote server based on the information to improve the accuracy of the color image when displayed on the display device, and delivering the modified color image to the client via the computer network for display on the display device, as required by claim 15. The Examiner cited no additional prior art reference to bridge this gap between Murashita et al. and the invention defined by claim 15.

With respect to claim 16, the Examiner asserted that Murashita et al. discloses that a remote server delivers a modified color image to a client. Again, the servers contemplated by Murashita et al. do not modify a color image at a remote server based on the information to improve the accuracy of the color image when displayed on the display device, and deliver the modified color image to the client via the computer network for display on the display device.

With respect to claim 24, the Examiner referred to his analysis for claims 3 and 14, and further stated, without any apparent support, that the Murashita et al. system conforms to the added requirements of claim 24 (essentially paraphrasing the limitations of that claim). Applicants are unable to find any support in Murashita et al. for the Examiner's position. Applicants have reviewed FIGS. 28-30, 33-36, 38-45, and 48, and accompanying text, in

Murashita et al., and find no mention of transmission of a web page from a web server to a client, wherein the web page includes an image tag identifying a color image on another server, i.e., a color image server residing on the computer network, followed by transmission of color response information as part of a web cookie to such a color image server, and modification of the color image by the color image server based on the information.

With respect to claim 25, the Examiner cited the same figures relied upon for the rejection of claim 24. Any suggestion in those figures of the features of claim 25 is equally lacking. For example, Murashita et al. makes no mention of the transmission of a first web page from a color profile server to the client, the web page guiding the client through a color profiling process to obtain the information, followed by transmission of a second web page from a web server to the client, wherein the web page includes an image tag identifying the color image on a color image server residing on the network, and transmission of the information as part of a web cookie to the color image server, wherein the color image server modifies the color image based on the information. From the Examiner's analysis, it is unclear which structure in Murashita et al. would correspond to the different servers required by claim 25, i.e., the web server, the color profile server, and the color image server.

With respect to 26, Applicants again express confusion concerning the features in Murashita et al. that would correspond to the claimed limitations. From Applicants' reading of Murashita et al., there appears to be no suggestion of a system comprising a web server, color image server, and color profile server, where the web server transmits web pages to remote clients residing on the computer network, the color image server transmits color images referenced by the web pages to the clients for display on display devices associated with the clients, and the color profile server guides the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, and wherein the color profiling process includes estimating the gray balance of the display device.

In view of the basic deficiencies identified above, Applicants reserve comment concerning the additional limitations expressed in claims 27-33 and 39-51, and do not acquiesce in the Examiner's application of the teachings of Murashita et al. to those claims. In general, however, the Examiner has failed to establish a prima facie case of obviousness. In addition to a lack of recognition of the structural and functional differences between the Murashita et al.

system relative and the requirements of Applicants' claims, the Examiner did not point to the requisite motivation in the prior art to modify the Murashita et al. system to conform to the claimed invention.

**Claim Rejection Under 35 U.S.C. § 103 over
Murashita et al. in view of Engeldrum et al.**

In the Office Action, the Examiner rejected claims 6-8, 52, 53, 59 and 64 under 35 U.S.C. 103(a) as being unpatentable over Murashita et al. in view of Engeldrum et al. Applicants respectfully traverse this rejection.

In support of the rejection of claim 7, the Examiner asserted that Murashita et al. discloses a color profiling process that includes estimating black point, coarse gamma, fine gamma, and gray balance for a display device. Then, apparently contradicting himself, the Examiner acknowledged that Murashita et al. does *not* "specifically disclose" a process of estimating black point, coarse gamma and fine gamma. The Examiner cited Engeldrum et al. for such a teaching, and concluded that it would have been obvious to modify the Murashita et al. system in view of Engeldrum et al. to arrive at the invention of claim 7. Applicants respectfully traverse this rejection.

Contrary to the requirements of claims 7, Murashita et al. and Engeldrum et al. lack any teaching that would have suggested estimation of gray balance of the display device. Indeed, the Examiner did not point to any mention of such a feature in the Murashita et al. and Engeldrum et al. references. Moreover, neither Murashita et al. nor Engeldrum et al. provides any teaching of estimating both a coarse gamma and a fine gamma based in part on the coarse gamma.

The portions of Engeldrum et al. identified by the Examiner (FIGS. 1-6 and Col. 1, lines 36-60) reveal nothing pertinent to the estimation of both a coarse gamma and a fine gamma, as set forth in claim 7. Accordingly, it is unclear how one of ordinary skill in the art in view of Engeldrum et al. could have conceived of such a limitation without access to Applicants' own disclosure. For similar reasons, the Examiner has not established a prima facie case of obviousness with respect to claims 52, 53, and 59. Therefore, the rejection is improper and should be withdrawn.

With respect to claim 64, the Examiner referred to his analysis of claim 7, and further asserted that Engeldrum et al. discloses a web cookie data structure conforming to the

requirements of claim 64. However, Applicants can find no mention whatsoever of the use of a web cookie data structure within Engeldrum et al. Therefore, without access to Applicants' disclosure, it is unclear how one of ordinary skill in the art would have found the use of a web cookie to be desirable in the Murashita et al. system, and especially how such a person would have conceived of the precise data structure fields required by claim 64, e.g., a first field indicating a web domain, a second field indicating a black point, a third field indicating a gamma of the display device, and a fourth field indicating a gray balance of the display device. The rejection is improper and should be withdrawn.

CONCLUSION

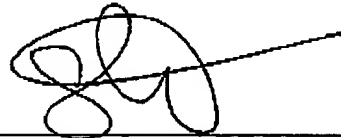
All claims in this application are in condition for allowance. Applicants respectfully request reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date

By

May 27, 2003

SHUMAKER & SIEFFERT, P.A.
8425 Seasons Parkway, Suite 105
St. Paul, Minnesota 55125
Telephone 651.735.1100
Facsimile 651.735.1102



Name Steven J. Shumaker
Reg. No. 36,275